

### **Remarks/Arguments**

Upon entry of the accompanying amendments, claims 1, 3-13 and 18-23 will be pending in this application. Claims 1-13 and 18-23 are rejected in the final Office Action of May 11, 2010. Claims 1 and 21-23 are amended herein to more particularly point out and distinctly claim the subject matter regarded as the invention. Claim 2 is cancelled herein.

### **Re: Rejection of Claims 1-13 and 18-23 under 35 U.S.C. §103(a)**

Claims 1-13 and 18-23 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,513,161 issued to Horimai et al. (hereinafter, "Horumai") in view of U.S. Patent No. 4,907,216 issued to Rijnsburger (hereinafter, "Rijnsburger"), and further in view of U.S. Patent No. 6,108,296 issued to Kajiyama et al. (hereinafter, "Kajiyama"). Applicants respectfully traverse this rejection for at least the following reasons.

Applicants first note that claim 1, as amended herein, recites:

"A method for storing data as bit cells in a prerecorded area of an optical recording medium using pits and lands, wherein the pits and lands are placed out of a center of a track of the prerecorded area and the data is encoded by bit cell signal transitions of the pits and lands from one side of the track center to another side of the track center, and the method comprises a step of placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions." (emphasis added)

As indicated above, amended claim 1 defines a method for storing data as bit cells in a prerecorded area of an optical recording medium using pits and lands. The pits and lands are placed out of a center of a track of the prerecorded area and the data is encoded by bit cell signal transitions of the pits and lands from one side of the track center to another side of the track center. Moreover, the method comprises a feature of placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions. Independent claims 21-23 are also amended herein and recite the aforementioned subject matter of claim 1 in a similar manner.

None of the cited references, whether taken individually or in combination, discloses or suggests each and every one of the features recited by independent claims 1 and 21-23. In particular, none of the cited references discloses or suggests the aforementioned claimed feature of placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions.

The primary reference, Horimai, discloses a method for storing data in a prerecorded area of an optical recording medium using pits and lands, whereby the pits and lands are placed out of the center of a track of the prerecorded area. However, Horimai fails to disclose or suggest, *inter alia*, features of: recording data as bit cells, encoding data by transitions of the pits and lands from one side of the track center to the other side of the track center, and placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions, as claimed.

Neither Rijnsburger nor Kajiyama is able to remedy each of the aforementioned deficiencies of Horimai.

Rijnsburger discloses a method of bit cell modulation, wherein data are encoded based on the transitions of a track groove from one side of the track center to the other side of the track center. The transitions are set in a predefined manner. However, Rijnsburger fails to disclose or suggest, *inter alia*, a feature of placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions, as claimed. Furthermore, contrary to the claimed invention, Rijnsburger teaches to displace the track itself, not the pits and lands. The pits and lands always remain on the center of the track.

Kajiyama discloses a technique which provides micro pits with a specified length (typically 1T) followed by lands with a specified length (typically 11T) on an optical recording medium for copy protection, i.e. to place pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at a position on an optical

recording medium. However, there is no indication whatsoever to place this sequence of micro pits at a position of a bit cell signal transition.

According to Kajiyama, the sequence of micro pits is placed beforehand in a copy protected area of an optical recording medium (see, for example, column 1, lines 46-55). Moreover, the micro pits are only present in a very small fraction of the recording area. In addition, since the micro pits are recorded beforehand, they cannot have any specific relation to bit cell signal transitions, which are not even present at the time of recording the micro pits. Accordingly, one skilled in the art would have absolutely no motivation to place the sequence of micro pits disclosed by Kajiyama at a position of a bit cell signal transition. Moreover, Kajiyama even teaches away from the solution according to the claimed invention, as the reference proposes to record the micro pits beforehand (i.e. before recording the bit cells).

In any event, even assuming, *arguendo*, that a person skilled in the art would consider modifying Kajiyama by placing the sequence of micro pits at a position of a bit cell signal transition, the combination of Horimai, Rijnsburger and Kajiyama still would not disclose or suggest each and every one of the features recited by independent claims 1 and 21-23. In particular, the resulting combination would still fail to disclose or suggest, *inter alia*, the aforementioned claimed feature of placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions.

Accordingly, since none of the cited references, whether taken individually or in combination, discloses or suggests at least one notable feature of the claimed invention, namely, the feature of "placing pits and lands, which are arranged in a fixed sequence of pit lengths and land lengths, at positions of all bit cell signal transitions" as recited by independent claims 1 and 21-23, Applicants submit that all pending claims are non-obvious over the proposed combination of Horimai, Rijnsburger and Kajiyama, and withdrawal of the rejection is respectfully requested.

**Conclusion**

In view of the foregoing amendments and remarks/arguments, the Applicants believe this application stands in condition for allowance. Accordingly, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the Applicants' attorney at (609) 734-6813, so that a mutually convenient date and time for a telephonic interview may be scheduled. Please charge the fee for the RCE to Deposit Account 07-0832.

Respectfully submitted,

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